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08/813,647 . 03/07/97 HENDEL

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EXAMINER

VU, T

ART UNIT

PAPER NUMBER

2756

DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/813,647

Applicant(s)
Hendel et al

Examiner
Thong Vu

Group Art Unit
2756



☒ Responsive to communication(s) filed on Aug 30, 1999

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-41 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-41 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Introduction

1. This office action is in response to Amendment A filed Aug 30, 1999. Amendment claims 1,19,24,32 and original claims 2-18,20-23,25-31,33-37 and new claims 38-41 are pending. The objections and rejections cited are as state below

Response to Arguments

2. Applicant's amendment filed Aug 30,1999 have been fully considered but they are moot in view of the new ground(s) of rejection.

3. In response to applicant's argument based upon the date of the references, contentions that the reference patents [Saito et al] based on the filing date of application [12/29/1994] for patent not the issue date.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-41 are rejected under 35 U.S.C. § 103 as being unpatentable over Choudhury et al [5,933,412] in view of Baker et al [5,719,870]

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As per claim 1, Choudhury disclose *the connection the first device and second device to a plurality of interfaces* such as ATM switches [Fig 2], *the first and second devices are in the local area network* such as ATM network [Fig 2]; *an associated identifier that identifies the connection between said first and second devices* such as the identify of corresponding switch [col 25 line 32] or corresponding VPIs [col 19 line 57]; load balancing [col 11 line 2] . However Choudhury did not detail *the emulating a single high speed interface with the plurality of interfaces by assigning to said plurality of interfaces an associated identifier that identifies the connection between said first and second devices* The skilled artisan would have looked to the network communication art and have been led to utilize the interface arrangement for full channel service on the high speed network such as the single emulating multi-point bus or interface as taught by Baker et al [Baker col 1 line 45-65]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the single emulating high speed interface bus as taught by Baker into the Choudhury system in order to enhance the network control and management. By this rationale claim 1 is rejected.

As per claim 2, Choudhury-Baker taught *selecting one of the plurality of interfaces to send a packet of data* [Choudhury col 8 line 52-53]. By this rationale claim 2 is rejected

As per claim 3, Choudhury-Baker disclose *selecting one of the plurality of interfaces to send the packet of data comprises utilizing state information (or state packet) in the first device* [Choudhury col 3 line col 3 line 35,40].By this rationale claim 3 is rejected

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As per claim 4, Choudhury-Baker disclose *selecting one of the plurality of interfaces to send the packet of data comprises utilizing address information (or destination address) in the packet of data.*[Choudhury col 3 line 59]. By this rationale claim 4 is rejected

As per claim 5 Choudhury-Baker disclose *transmitting a first packet of data on only one [or single] of the plurality of interfaces* [Baker col 1 line 45-65]. By this rationale claim 5 is rejected

As per claim 6, Choudhury-Baker disclose *assigning a first identifier to a first interface and a second interface at the first device; and identifying a path between the first device to the second device with the first identifier* by the routing table [Choudhury col 3 line 59]. By this rationale claim 6 is rejected

As per claim 7, Choudhury-Baker disclose *assigning a media access control (MAC) address or switch identifier* [Choudhury col 3 line 60]. By this rationale claim 7 is rejected.

As per claim 8, Choudhury-Baker disclose *assigning an Internet Protocol (IP) address* [Choudhury col 18 line 40]. By this rationale claim 8 is rejected

As per claim 9, Choudhury-Baker disclose *assigning a group identifier* [Choudhury col 10 line 34]. By this rationale claim 9 is rejected

As per claim 10, Choudhury-Baker teach *the data traffic on the first interface and the second interface is approximately the same* [Fig 4] when the first and second interface connect to Ethernet segment with the maximum data traffic rate is 10 Megabits/sec [Choudhury col 18 line 30] .By this rationale claim 10 is rejected

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As per claim 11, Choudhury-Baker taught *allocating data to be transmitted on the first interface and the second interface, transmitting the data on the first interface when the output queue of the second interface is fuller than the output queue of the first interface and when previous data sent on the first interface is no longer on the first interface; and transmitting the data on the second interface when the output queue of the first interface is fuller than the output queue of the second interface and when previous data sent on the second interface is not longer on the second interface* such as the inherent feature of statistical multiplexer [Choudhury col 4 line 66]. By this rationale claim 11 is rejected.

As per claim 12, Choudhury-Baker taught *selecting one of the first interface and the second interface to send a packet of data based on address information in the packet of data* such as destination address [Choudhury col 3 line 59]. By this rationale claim 12 is rejected.

As per claim 13, Choudhury-Baker taught *transmitting a first packet of data on only one of the first interface and the second interface* as a design choice since the network operate as parallel connection [Choudhury col 1 line 56]. By this rationale claim 13 is rejected.

As per claims 14,19,24,32 contain the similar limitations set forth of method claim 1. Therefore, claims 14,19,24,32 are rejected for the same rationale set forth claim 1.

As per claims 15-18 contain the similar limitations set forth of method claims 2-5 respectively. Therefore, claims 15-18 are rejected for the same rationale set forth claim 2-5.

As per claims 20 and 23, Choudhury-Baker taught *the first interface and the second interface are homogeneous* such as ATM switches [Choudhury col 11 line 35]. By this rationale claims 20,23 is rejected

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As per claim 21, Choudhury-Baker taught *the first device comprises a load balancing unit that allocates data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same.*[Choudhury col 11 line 2]. By this rationale claim 21 is rejected

As per claims 22, Choudhury-Baker taught *the first device is an end-node* as a design choice. By this rationale claim 22 is rejected

As per claims 25-27;28-31;35,33,36 and 37 contain the similar limitations set forth of method claims 7-9, 20-23 . Therefore, claims 25-31, 35,33,36 and 37 are rejected for the same rationale set forth claims 7-9, 20-23.

As per claims 35-37 contain the similar limitations set forth of method claims 20,22,23 respectively. Therefore, claims 35-37 are rejected for the same rationale set forth claims 20,22,23

As per claim 34, Choudhuiry-Baker taught *the trunking pseudo driver (or end application) comprises an identification unit that assigns a first identifier to the first interface and the second interface that identifies a path (or ATM connection) between the first and the second device* [Choudhury col 13 line 55-col 14 line 5]. By this rationale claim 34 is rejected.

As per claim 38, Choudhury disclose *the connection the first device and second device to a plurality of interfaces* such as ATM switches [Fig 2], the first and second devices are in the local area network such as ATM network [Fig 2]; *the emulating a single high speed interface with the plurality of interfaces.*[Baker col 1 line 45-65].By this rationale claim 38 is rejected.

Claim 39-41 content the similar limitations set forth of method claim 38. Therefore, claims 39-41 are rejected for the same rationale set forth claim 38.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Abe et al** . Routing System for Communications Network [USP 5,537,394]

- **Onweller**. Network Addressing Scheme Encoding Communication channel Information [USP 5,799,016]

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


FRANK J. ASTA
SUPERVISORY PATENT EXAMINER
GROUP 2700

Thong Vu
Nov 5, 1999